CLAIMS

1. A method of monitoring a network, comprising:

hosting an agent on at least one of a plurality of interconnected network elements, wherein the agent is configured to gather application data representing a network-based application for use by the host network element; and

using the agent, monitoring application traffic between the application and at least one other network element.

2. The method according to claim 1, further comprising tracing a route of the application traffic with the agent.

3. The method according to claim 2, wherein the tracing the route includes identifying a server of the application.

4. The method according to claim 3, wherein the tracing the route includes identifying a client of the server.

5. The method according to claim 4, wherein the tracing the route includes identifying any intermediate network elements along the route between the server and the client.

6. The method according to claim 4, wherein the client is the host network element.

7. The method according to claim 1, wherein the agent is further configured to identify a relationship between the application and the other network element based on the application traffic.

8. The method according to claim 7, wherein the relationship is a client/server relationship.

9. The method according to claim 7, wherein the relationship is a peer-to-peer relationship.

~~10.~~ A method of monitoring a network, comprising:

hosting an agent on at least one of a plurality of interconnected network elements;

gathering, with said agent, application data representing a network-based application for use by the host network element; and

using said agent, monitoring application traffic between the application and any other network element having a relationship with the application.

11. The method according to claim 10, wherein the monitoring further comprises tracing a route of said application traffic.

12. The method according to claim 10, wherein the application data includes data representing a server of the application.

13. The method according to claim 10, further comprising reporting the application data and application traffic data to a network management system.

14. The method according to claim 13, wherein the network management system is hosted on a different one of the network elements.

15. The method according to claim 12, wherein the monitoring further comprises identifying any intermediate network elements between the server and a client traversed by said application traffic.

16. The method according to claim 15, wherein the monitoring further comprises tracing a route between the server and the client.

17. The method according to claim 16, wherein the route forms an topology of network elements for the application.

18. The method according to claim 10, further comprising repeating the gathering application data and the monitoring application traffic for each network-based application used by the host network element.

19. The method according to claim 18, wherein the monitoring further comprises tracing a route between a server and a client of each application.

20. The method according to claim 19, wherein the route for each application includes any intermediate network elements traversed by the application, to form a network topology of all of the monitored applications.

21. A method of monitoring a network, comprising:

hosting an agent on at least one of a plurality of interconnected network elements, for autonomously gathering application data with said hosted agent, wherein the application data represents a network-based application for use by the host network element; and

using said agent, monitoring application traffic between the application and any other network element having a relationship to the application.

22. An apparatus for monitoring a network, comprising:

an agent being configured to gather application data representing a network-based application, and further being configured to monitor application traffic between the application and any network element in the network having a relationship to the application; and

agent hosting means for hosting the agent on one of a plurality of interconnected network elements.

23. The apparatus according to claim 22, wherein the agent is further configured to discover a server of the application, and to trace a route of the application traffic from the server through any intermediate network elements to the client.

24. The apparatus according to claim 23, wherein the client includes the agent hosting means.

25. The apparatus according to claim 22, wherein the agent is further configured to communicate a report externally from the agent hosting means.

26. The apparatus according to claim 25, wherein the agent hosting means includes a memory within the hosting network element.